

# Work Order ID 56670

March 4, 2010 11:16:28 AM



Page 1

Item ID: D209-669-043

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 3/04/10 Start Qty: 1.00



Cust Item ID:

Required Date: 3/19/10 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D2906

Rev B

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy D209-669 bluefile & type labels per PPP D205-669-043 Chg 002

N/A

110

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1- Inspect mat'l D2500-1-190 for damage

2-Cut D2500-1-190 per Dwg D2906 if necessary Debur ends

3-Acid etch and Alodine tube per QSI 005 4.1

10-3-9

# Work Order ID 56670

March 4, 2010 11:17:33 AM



Page 2

Item ID: D209-669-043

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Item Name: Replacement Skidtube

Start Date: 3/04/10 Start Qty: 1.00



Cust Item ID:

Required Date: 3/19/10 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

120

QC3- Insp Part Finish

0.00



QC

Memo

0.00

Quality Control



BE 10/03/09

130

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Drill pilot holes using drill jig DT8149, DT8711-2 & DT8711-3 (Do not use cutting fluid)

2-Open holes to 0.500" as per Dwg D2906 without cutting fluid

3-Deburr and blow out all chips from inside of tube

4-Bond web in place per QSI 015. Allow 12 Hrs. cure time before cutting

Pick:

Qty ☐ Part Number ☐ Description ☐ Batch  
A/R ☐ ☐ Sikaflex-291 ☐ M112429 ☐

Sikaflex expire date: 12/31/10

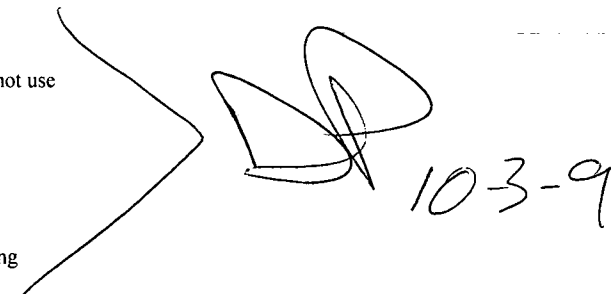
Start Time: 1:45 Date: 10/3/09

Fin Time: 2:35pm Date: 10/3/09

pick:

Qty P/N description  
1 D2926-3 Web

B/N  
B 54474



11/03/09

# Work Order ID 56670

March 4, 2010 11:17:34 AM



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Item ID: D209-669-043

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Item Name: Replacement Skidtube

Start Date: 3/04/10 Start Qty: 1.00



Cust Item ID:

Required Date: 3/19/10 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Stop



Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

140

0.00



CNC Bend I

CNC Delta 100 Bender

BENDING MACHINE - CROSSTUBES

Memo

0.00

1-Bend as per program COB43FWD & COBRAFT on CNC Bender and Folio FT

2-Cut tubes as per Dwg. D2906 & per template DT8185B & DT8185BC

10.03.10

10-3-10

150

0.00



Skidtubes

Skidtubes

Skidtubes

Memo

0.00

1-Countersink holes as per Dwg D2906 without cutting fluid

2-Deburr ends

3-Prepare tube for welding, remove alodine as required.

10-03-11

160

0.00



QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

Sub 14

40

# Work Order ID 56670

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Item ID: D209-669-043

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Item Name: Replacement Skidtube

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Cust Item ID:

Required Date: 3/19/10 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: Date: Tooling: Date:

Stop



QC: Date: SPC (Y/N): Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

170

0.00



Large Fab

Skidtubes

Memo

0.00

Skidtubes

1-Weld crossbolt spacers D2579 as per Dwg. D2906 and QSI 004.  
For D2579 spacers, weld one side, pass 3/8" drill, weld other side, pass 3/8"  
drill  
A/R [ ] Aluminum Rod *M113207 BE 10/03/15*

2-Grind welds as per Dwg D2906 Grind flush ridge made from bending

3-Drill holes for wearplates using DT8217 Open holes to 19/64", adjust stopper  
not to hit web. Debur

4-Counterbore crossbolt spacers to 7/16" ID x 1.0" deep as per Dwg D2906,  
Debur holes

5-Drill pilot holes for aft & fwd cap using DT8215 open holes to #6" Debur

6-Drill pilot holes for Tow ring using DT8091-3 , open to .640" and Debur

*BE 10/03/15*

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Start Date: 3/04/10 Start Qty: 1.00



Cust Item ID:

Required Date: 3/19/10 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: Date: Tooling: Date:

Stop



QC: Date: SPC (Y/N): Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

180

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

8 10/03/15

190

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8 10/03/15

(X)

200

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

Hand Finishing

+ Reabodie ASPCR PAR-0413

= 24 10/03/22

(X)

# Work Order ID 56670

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Item ID: D209-669-043

Accept



Setup Start



Revision ID:

Item Name: Replacement Skidtube

Stop



Start Date: 3/04/10 Start Qty: 1.00



Cust Item ID:

Required Date: 3/19/10 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

210



Powdercoat

Powder Coating

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

M113170

0.00

0.00

=> Jd 10/03/23

(X1)

Ø

Memo

START TIME: 1:30 PM  
OVEN TEMPERATURE: 320°F  
FINISH TIME: 2:00 PM

220



QC

Quality Control

QC3- Inspect Part Finish

Memo

0.00

0.00

BK 10-3-23

Ø Ø

# Work Order ID 56670

March 4, 2010 11:17:43 AM



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Item ID: D209-669-043

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 3/04/10 Start Qty: 1.00



Cust Item ID:

Required Date: 3/19/10 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

230

0.00



HandFinish

HandFinishing

Memo

0.00

Hand Finishing

1-Install inserts & wearplates as per Dwg. D2906. Use a drop of Sikaflex on insert holes before installing wearplates

A/R ☐ ☐ ☐ Sikaflex-291 *M112345*

Sikaflex expire date: *10/08*

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2906

3-Inspect for foreign object per QSI 024

4-Install D2855 Fwd & Aft Cap as per Dwg D2906 and seal Fwd & Aft Cap with Sikaflex. Clean excess adhesive

A/R ☐ ☐ ☐ Sikaflex-291 *M112345*

Sikaflex expire date: *10/08*

5-Wing Walk as per Dwg D2906 and QSI 005 4.4

Batch *M113465*

*10-3-24 ①*

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Item ID: D209-669-043

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Setup Start

Revision ID:

Stop

Item Name: Replacement Skidtube

Start Date: 3/04/10 Start Qty: 1.00

Cust Item ID:

Required Date: 3/19/10 Req'd Qty: 1.00

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

240

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for Foreign objects per QSI 024

250

Packaging

0.00



Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPPD209-669-043

Location:

PPP Rev:

PPP 56655

260

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/04/12

ME  
10-4-9



# Picklist Print

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Page 1

Work Order ID: 56670



Parent Item: D209-669-043



Parent Item Name: Replacement Skidtube

Start Date: 3/04/10

Required Date: 3/19/10

Comments: new IPP 08.02.13 LL, verified by: DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D2500-1-190		Manufactured	No			110	Each	77.0000	1.0000			
-------------	--	--------------	----	--	--	-----	------	---------	--------	--	--	--



Ext'n - I' Beam Tube 4"



## Warehouse

## Loc Qty

## Loc Code

### Location

Main Warehouse

LG

74

52319

74

Main Warehouse

ST

3

46468

3

D2926-3		Manufactured	No			110	Each	1.0000	1.0000			
---------	--	--------------	----	--	--	-----	------	--------	--------	--	--	--



Web



10-3-9

## Warehouse

## Loc Qty

## Loc Code

### Location

Main Warehouse

ST

1

52066

1

B ~~52066~~

①

M10/3/9



# Picklist Print

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Page 2

Work Order ID: 56670



Parent Item: D209-669-043



Parent Item Name: Replacement Skidtube

Start Date: 3/04/10

Required Date: 3/19/10

Comments: new IPP 08.02.13 LL, verified by: DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2579		Manufactured	No			170	Each	176.0000	19.0000			



Crossbolt Spacer



Warehouse Loc Qty Loc Code

Location

Main Warehouse

LG	54	
51525	4	
53780	3	
54543	18	
56145	29	

Main Warehouse

ST	122	
43988	4	
46434	4	
46956	2	
47797	9	
48272	2	
51314	71	
51315	30	

Q 56715

\* 19

BE 12/03/15

# Picklist Print

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Parent Item: D209-669-043



Parent Item Name: Replacement Skidtube

Start Date: 3/04/10

Required Date: 3/19/10

Comments: new IPP 08.02.13 LL, verified by: DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2855		Manufactured	No			230	Each	145.0000	2.0000			



Cap

Warehouse                      Loc Qty                      Loc Code  
Location

Main Warehouse

ST026	145
50513	1
50770	1
51539	37
53791 ✓	106

2.5K 10-3-24

AN3-5A

Purchased No

230 Each 1,411.000 4.0000



Bolt

Warehouse                      Loc Qty                      Loc Code  
Location

Main Warehouse

ST	1411
100188 ✓	188
105057 ✓	1223

4.5K 10-3-24

# Picklist Print

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Work Order ID: 56670

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Parent Item Name: Replacement Skidtube

Comments: new IPP 08.02.13 LL, verified by: DD

Start Date: 3/04/10

Required Date: 3/19/10

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960JD10L		Purchased	No			230	Each	3,181.000	4.0000			



Washer

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 3181

101291 16

105793 49

110985 3116

ALS7-1032-130

Purchased

No

230

Each

986.0000

44.0000



Insert

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 986

108606 52

111529 130

111779 34

112772 11

113238 759

ALS4-1032-130

44. BL 10-3-24.

March 4, 2010 11:16:11 AM

Shop Packet Print

Page 4

# Picklist Print

March 4, 2010 11:16:12 AM

Page 5

Work Order ID: 56670

Parent Item: D209-669-043

Parent Item Name: Replacement Skidtube

Comments: new IPP 08.02.13 LL, verified by: DD

Start Date: 3/04/10

Required Date: 3/19/10

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3C4A		Purchased	No			230	Each	1,333.000	44.0000			



BOLT



Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 1333

112314 13

112720 12

112724 3

112829 1

112991 2

113121 64

113226 344

113644 294

113749 100

114103 500

AN960C10L

Purchased

No

230

Each

388.0000

44.0000



washer



44 BL 10-3-24.

Warehouse Loc Qty Loc Code

Location

OFFSHORE

FG 113691 100

103585 100

Main Warehouse

ST 288

112116 128

112612 160

NAS1149C0332R

44, BL 10-3-24.

March 4, 2010 11:16:12 AM

Shop Packet Print

Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

March 4, 2010 11:16:13 AM

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Work Order ID: 56670



Parent Item: D209-669-043



Parent Item Name: Replacement Skidtube

Start Date: 3/04/10

Required Date: 3/19/10

Comments: new IPP 08.02.13 LL, verified by: DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2594-3		Manufactured	No			230	Each	564.0000	14.0000			



O-Ring, 205 Skidtube



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	511	
51613	27	
55546 ✓	484	
Main Warehouse		
ST	53	
52562	53	

\_\_\_\_\_

\_\_\_\_\_ *H. B. 10-3-24.*

\_\_\_\_\_

\_\_\_\_\_

March 4, 2010 11:16:13 AM

Shop Packet Print

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Work Order ID: 56670



Parent Item: D209-669-043



Parent Item Name: Replacement Skidtube

Start Date: 3/04/10

Required Date: 3/19/10

Comments: new IPP 08.02.13 LL, verified by: DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2594-1		Manufactured	No			230	Each	625.0000	14.0000			



Plug, 205 Skidtube

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP 497

54008 1

54643 15

55002 ✓ 481

Main Warehouse

ST 128

42221 16

42807 92

43884 3

46435 2

51527 9

51757 6

14. *PK* 10-3-24.

March 4, 2010 11:16:14 AM

Shop Packet Print

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Work Order ID: 56670



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Parent Item Name: Replacement Skidtube

Start Date: 3/04/10

Required Date: 3/19/10

Comments: new IPP 08.02.13 LL, verified by: DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D3564-9		Manufactured	No			230	Each	21.0000	1.0000			
---------	--	--------------	----	--	--	-----	------	---------	--------	--	--	--



Wearshoe

Warehouse Location	Loc Qty	Loc Code
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Main Warehouse

FP19	19	
------	----	--

55025	7	
-------	---	--

55334	12	
-------	----	--

Main Warehouse

ST	2	
----	---	--

44659	1	
-------	---	--

45825	1	
-------	---	--

D3564-11		Manufactured	No			230	Each	12.0000	1.0000			
----------	--	--------------	----	--	--	-----	------	---------	--------	--	--	--



Wearshoe

Warehouse Location	Loc Qty	Loc Code
-----------------------	---------	----------

Main Warehouse

FP19	10	
------	----	--

52125	1	
-------	---	--

55332	9	
-------	---	--

Main Warehouse

ST	2	
----	---	--

45823	1	
-------	---	--

50112	1	
-------	---	--

56834

1 Bl 10-3-24.

4 Bl 10-3-24.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

March 4, 2010 11:16:22 AM

Work Order ID: 56670



Parent Item: D209-669-043



Parent Item Name: Replacement Skidtube

Start Date: 3/04/10

Required Date: 3/19/10

Comments: new IPP 08.02.13 LL, verified by: DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3564-5		Manufactured	No			230	Each	37.0000	1.0000			



Wearshoe



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
OFFSHORE		
FG	2	
34806	2	
Main Warehouse		
FP19	33	
51925	1	
54772	7	
55024	12	
55333 ✓	13	
Main Warehouse		
ST	2	
45824	1	
47433	1	

1 / 10-3-24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

March 4, 2010 11:16:22 AM

Work Order ID: 56670



Parent Item: D209-669-043



Parent Item Name: Replacement Skidtube

Start Date: 3/04/10

Required Date: 3/19/10

Comments: new IPP 08.02.13 LL, verified by: DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D3566-1		Manufactured	No			230	Each	25.0000	2.0000			
---------	--	--------------	----	--	--	-----	------	---------	--------	--	--	--



Gasket

Warehouse	Loc Qty	Loc Code
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Location

Main Warehouse

FP	56532	20	
----	-------	----	--

52512	3		
-------	---	--	--

54480	1		
-------	---	--	--

55011	1		
-------	---	--	--

55320	15		
-------	----	--	--

Main Warehouse

ST	5		
----	---	--	--

46349	1		
-------	---	--	--

51218	1		
-------	---	--	--

51259	3		
-------	---	--	--

2. BK 123-24



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

March 4, 2010 11:16:27 AM

Work Order ID: 56670



Parent Item: D209-669-043



Parent Item Name: Replacement Skidtube

Start Date: 3/04/10

Required Date: 3/19/10

Comments: new IPP 08.02.13 LL, verified by: DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3566-5		Manufactured	No			230	Each	27.0000	1.0000			



Gasket



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP19	23	
55026	11	
55335 ✓	12	
Main Warehouse		
ST	4	
36113	1	
46186	1	
47318	1	
51260	1	

1 *DL* 10-3-24.

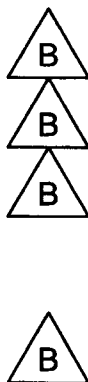
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



QTY -041	QTY -043	Part Number	Description
X		D2906-041	SKIDTUBE ASSEMBLY
	X	D2906-043	SKIDTUBE ASSEMBLY
1	1	D2500-1-190	EXTRUSION
22	19	D2579	CROSS BOLT SPACER
12	14	D2594-1	PLUG
12	14	D2594-3	O-RING
2	2	D2855	AFT CAP
1		D2926-1	WEB
	1	D2926-3	WEB
1	1	D3564-9	WEARSHOE (REPLACES D2577-1)
1	1	D3564-11	WEARSHOE (REPLACES D2577-3)
1	1	D3564-5	WEARSHOE (REPLACES D2577-5)
1		D3564-15	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
1		D3566-15	GASKET
50	44	ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or ALS4-1032-130	INSERT
50	44	AN3C4A	BOLT
4	4	AN3-5A	BOLT
50	44	AN960C10L	WASHER
4	4	AN960JD10L	WASHER

#### GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 2) LENGTH OF D2500-1 EXTRUSION BEFORE BENDING = 190 INCHES.
- 3) INSERT D2926-1/-3 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 6) USE DART DRILL TEMPLATE DT2906-041T1 (D2906-041) OR DT2906-043T1 (D2906-043) TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION C-C AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/291.
- 7) WELDING TO BE DONE PER DART QSI 004.
- 8) FINISH:  
ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2926-1/-3 WEB. POWDER COAT ASSEMBLY WHITE (REF 4.3.5.1) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4
- 9) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (12 PLACES).
- 10) ALL DIMENSIONS ARE IN INCHES.

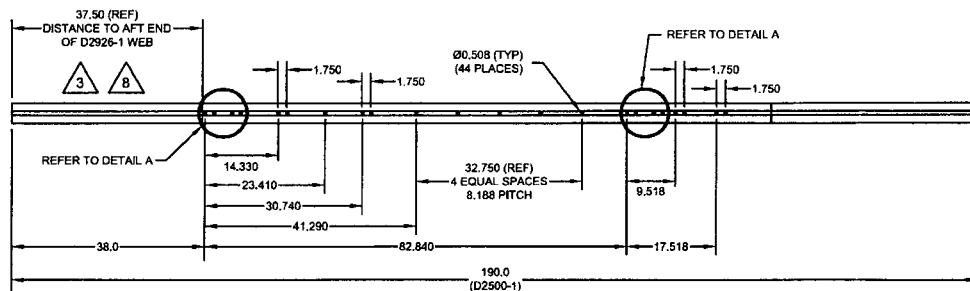
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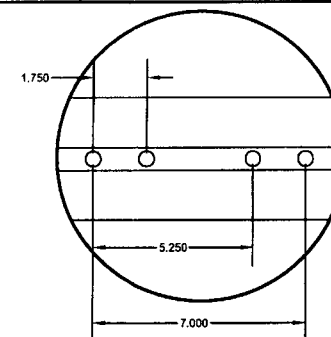
07.09.04

B	UPDATE DRAWING FORMAT; RE-ORGANIZE; ADD STAINLESS STEEL WEARPLATES AND GASKETS CHANGE WEARPLATE HARDWARE TO SS; PG 1: ADD NOTE 10; PG 2 C7: REMOVE AFT Ø0.640 HOLE FROM -041; PG 3 C3: CORRECTED -043 CAP P/N; PG 3 D7: 38 PLACES WAS 44 PLACES;	CB	07.08.21
A	NEW ISSUE	CP	04.06.22
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>qp</i>	<b>DART AEROSPACE LTD</b>	
DRAWN	<i>CB</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>PH</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>PH</i>	D2906	SHEET 1 OF 3
APPROVED	<i>PH</i>	TITLE	SCALE
DE APPR.	<i>PH</i>	AH-1 (209) SKIDTUBE ASSEMBLY	NTS
DATE	07.08.21	COPYRIGHT © 2004 BY DART AEROSPACE LTD	
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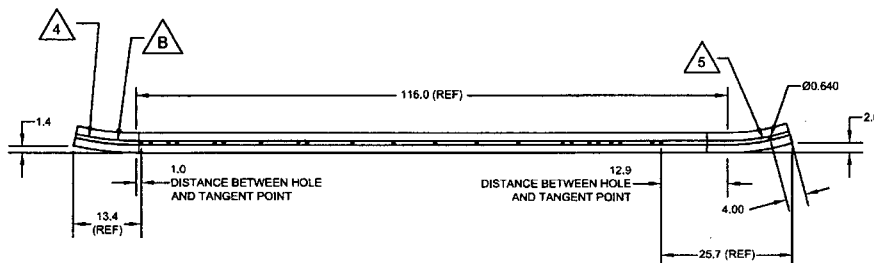
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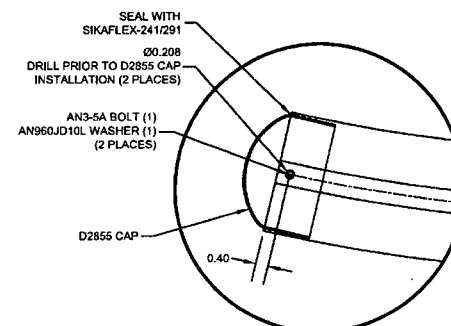
**D2906-1 DRILLING DETAIL**



**DETAIL A**  
SCALE 1:4

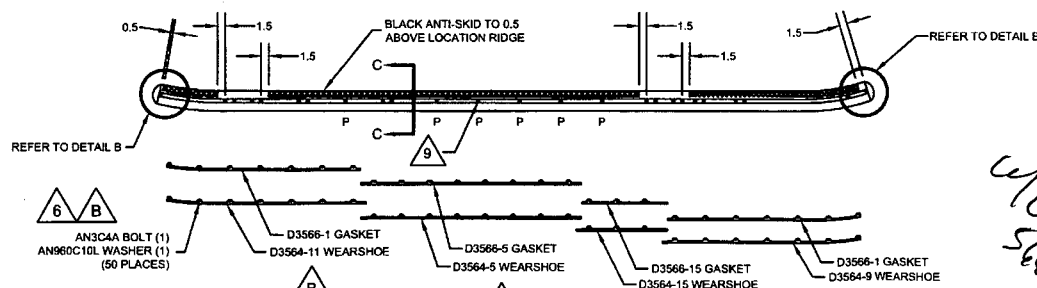


**D2906-041 BENDING AND CUTTING DETAIL**

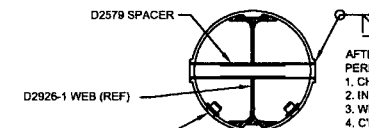


**DETAIL B**  
SCALE 1:4

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**D2906-041 ASSEMBLY DETAIL**

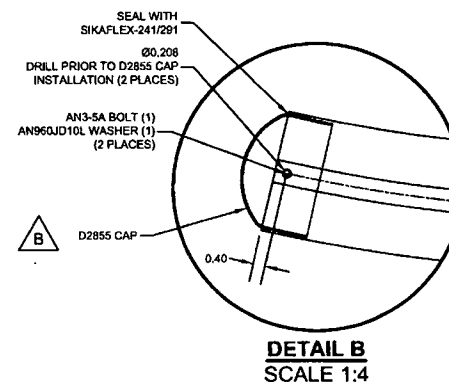


**SECTION C-C**  
SCALE 1:4

- AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR 00.508 HOLES ONLY:
1. CHAMFER HOLE 0.050 X 45°
  2. INSERT D2579 SPACER (22 PLACES)
  3. WELD INTO PLACE AND GRIND FLUSH
  4. C-BORE D2579 SPACER TO 00.437 X 1.00 DEEP

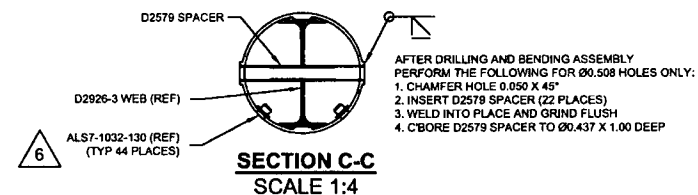
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DRAWN	C.B.	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO.	REV. B
MFG. APPR.	91	D2906	SHEET 2 OF 3
APPROVED	91	TITLE	SCALE
DE APPR.	91	AH-1 (209) SKIDTUBE ASSEMBLY	1:24
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DRAWN	CB	<b>HAWKESBURY, ONTARIO, CANADA</b>	
CHECKED	CH	DRAWING NO.	REV. B
MFG. APPR.	21	D2906	SHEET 3 OF 3
APPROVED	40	TITLE	
DE APPR.	21	AHL-1 (209) SKIDTUBE ASSEMBLY	
DATE	07.08.21	SCALE	
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NO. 226

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliott  
Job number: 56134  
Part number: D205 634-041  
Description: 205 skid tube  
Welding Process: Tig[☒] Mig[ ]  
Base material: Aluminium  
Current: AC[☒] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[ ]  
Penetration: pass[☒] fail[ ]

UNACCEPTABLE

Cracks: pass[☒] fail[ ]  
Undercut: pass[☒] fail[ ]  
Pin holes: pass[☒] fail[ ]  
Overlap (cold lap): pass[☒] fail[ ]  
Porosity (surface): pass[☒] fail[ ]  
Coloration: pass[☒] fail[ ]

Qualifier [Signature] Date of Test Coupon 10-02-23

Welder [Signature] Date of Test Coupon 10-02-23

The above named individual is qualified in accordance with AWS D17.1.2001 to weld